



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

JAN 07 2020

**CERTIFIED MAIL-RETURN RECEIPT REQUESTED**

**Article Number: 7019 1120 0002 0279 0706**

Oleg Kostin, Senior Manager – Production  
Central Operations  
New Jersey American Water – Raritan  
P.O. Box 102  
Bound Brook, NJ 08805

Dear Mr. Kostin:

The United States Environmental Protection Agency (EPA), Region 2, is responsible for assuring public water systems (PWSs) provide safe drinking water in accordance with the Safe Drinking Water Act (SDWA or Act), 42 U.S.C. §§300f - 300j-26, and the regulations promulgated pursuant to the Act. SDWA Section 1445 and 40 Code of Federal Regulations (C.F.R.) Part 141 Subpart D (§141.31) authorizes the EPA to require the submittal of information so it can determine a public water system's compliance with federal drinking water regulations.

As you are aware, PG Environmental and EPA conducted an inspection at the New Jersey American Water (NJAW) Raritan public water system (PWS) beginning on February 11, 2019. On September 5, 2019, EPA issued an inspection report summarizing potential noncompliance items, significant deficiencies and observations based on the physical inspection of NJAW Raritan system components. During the week of May 13, 2019, EPA and the New Jersey Department of Environmental Protection (NJDEP) conducted a file review of compliance monitoring records for the period of January 1, 2017 through March 31, 2019. In addition, EPA reviewed storage tank inspection reports. The enclosed report supplements the September 5, 2019 inspection report and summarizes potential noncompliance items, significant deficiencies and observations identified during the review of compliance records and storage tank inspection reports.

**INFORMATION REQUEST**

Under the authority of Section 1445(a)(1)(B) of the SDWA, 42 U.S.C. §300j-4(a)(B), EPA requests that NJAW Raritan provide the following information, within **twenty (20) days** of the receipt of this letter:

- a. A description of how NJAW Raritan calculates disinfection contact time (CT) and log inactivation for virus and Giardia for the Raritan Millstone treatment plant. Include supporting documentation on the factors being used (e.g. volume of the components, baffling factors, disinfectant injection points, disinfectant residual sampling locations and equations/formulas) (See observation #15 of the report).

Internet Address (URL) • <http://www.epa.gov>

- b. For the period of October 2018 – December 2019, submit daily chlorine residual concentration data utilized for the Raritan Millstone treatment plant CT calculations and chlorine residual concentration measured at the entry point to the distribution system.
- c. An explanation and/or reason for the list of instances when the individual filter turbidity (IFE) effluent for specific filters was greater than 1.0 NTU, provided in Attachment A, Tables 1 and 2 and indicate whether an IFE Report (Form BSDW-23) was submitted to NJDEP. If an IFE Report was submitted to NJDEP, include a copy with your response.
- d. Copies of the Operations Plan for the Springfield and Charles Street treatment plants.
- e. Copy of the Standard Operating Procedures for the application of phosphoric acid at the Raritan Millstone treatment plant.

Within **forty-five (45) days** of receipt of this letter, please submit the following:

- f. A certification that the significant deficiencies identified in the enclosed file review report have been corrected or an action plan for their correction.
- g. A list of all wells that have been out of operation for the last 5 years and NJAW Raritan plans to rehabilitate or properly abandon and seal the well(s).
- h. Storage Tanks (See significant deficiencies #7-9 of the report and Attachment B):
  - 1. A detailed action plan for the internal inspection of storage tanks, including milestones and compliance deadlines.
  - 2. Copies of comprehensive inspection reports for the Cedar Grove, Cranbury Twp., Princeton 1, Princeton 2, and RCA storage tanks and certification that the significant deficiencies identified have been corrected or submit an action plan for their correction.
  - 3. Copies of external inspection reports for the Hummocks Clear Well 1MG, Jerusalem Road 1MG and Jerusalem Road 5MG Reservoir.
  - 4. Certification that the significant deficiencies identified at the following storage tanks have been corrected or submit an action plan for their correction: Hummocks Water Sphere, Johnston Drive High Tank, Mount Lucas Tank, Oak Tree 1, Oak Tree 2, Kenilworth, Star Drive Tank, Terhune Tank and Sheep Hill. Copies of inspection reports for these storage tanks have been provided to EPA.

All information requested shall be submitted in electronic or hard copy format to:

Nicole Foley Kraft, Chief  
 Safe Drinking Water Act Compliance Section  
 US Environmental Protection Agency, Region 2  
 290 Broadway, 21<sup>st</sup> Floor  
 New York, NY 10007-1866  
[Kraft.Nicole@epa.gov](mailto:Kraft.Nicole@epa.gov)

and

Donald Hirsch, Chief  
Bureau of Water Compliance and Enforcement- Northern  
New Jersey Department of Environmental Protection  
7 Ridgedale Avenue  
Cedar Knolls, NJ 07927  
[Don.Hirsch@dep.nj.gov](mailto:Don.Hirsch@dep.nj.gov)

and

Patricia L. Gardner, Director  
Division of Water Supply and Geoscience  
New Jersey Department of Environmental Protection  
Mail Code 401-04Q  
PO Box 420  
Trenton, NJ 08625  
[Patricia.Gardner@dep.nj.gov](mailto:Patricia.Gardner@dep.nj.gov)

and

Rai Belonzi, Chief  
Bureau of Water Compliance and Environmental, Southern  
New Jersey Department of Environmental Protection  
2 Riverside Drive  
Suite 201  
Camden, NJ 08103  
[Rai.Belzoni@dep.nj.gov](mailto:Rai.Belzoni@dep.nj.gov)

Please be advised that, under Section 1445(c) of the SDWA, 42 U.S.C. §300j-4(c), and 40 C.F.R. §19.4, Table 1, failure to provide information required by this letter may result in a civil penalty of up to \$57,317. In addition, under SDWA Section 1414(g), 42 U.S.C. §300g-3(g), failure to provide the information required by this letter may result in an order requiring compliance. Violation of such order may lead to sanctions under SDWA Section 1414, 42 U.S.C. §300g-3 and 40 C.F.R. §19.4, Table 1, which include penalties of up to \$57,317 per day of violation. The information provided in response to this letter may be used by the United States in administrative, civil or criminal proceedings.

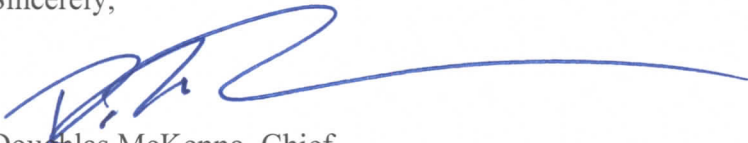
You may, if you so desire, assert a confidential business information (CBI) claim covering any or all of the information furnished to EPA in response to this letter. Every CBI claim must be made in a manner described in 40 C.F.R. Part 2, Subpart B, and must be fully substantiated with documentary evidence which shows how the claim meets each and every criterion listed in 40 C.F.R. §§2.208 and 2.304. If no CBI claim accompanies your information when it is received by EPA, it may be made available to the public by EPA without further notice to you. This request for information is not subject to review by the Office of Management and Budget (OMB) under the Paper Reduction Act because it is not an “informal collection request” within the meaning of 44 U.S.C. §§3502(4) & (11), 3507, 3512 and 3518. Furthermore, it is exempt from OMB review under the Paper Reduction Act because it is directed to fewer than 10 persons. 44 U.S.C. §§3502(4), (11); 5 C.F.R. §1320.5(a).



Please note, that in accordance to 40 C.F.R. §141.153(h)(6), a ground water system that receives notice of a significant deficiency must inform its customers of any significant deficiency that is uncorrected at the time of the publication/distribution of the Consumer Confidence Report. The system must continue to inform the public annually, until that significant deficiency is corrected. 40 C.F.R. §141.153(h)(6) details the language content. While NJAW Raritan is classified as a surface water system, it utilizes ground water and surface water that is combined within the distribution system (after treatment) and therefore the significant deficiencies provision of the Ground Water Rule applies to all NJAW Raritan components located past the point of surface water treatment. (40 C.F.R. §141.400(b)). If NJAW Raritan has completed an evaluation of the distribution system identifying components located in areas solely served by surface water, please submit a copy of the plan to EPA and NJDEP so a determination can be made on which components are not subject to this requirement.

I would like to thank you and your staff for your continued cooperation and assistance during this inspection. If you have any questions or would like to meet to discuss the findings of the inspection/file review, please feel free to contact Nicole Foley Kraft, Chief, Safe Drinking Water Act Compliance Section at (212) 637-3093 or Rosa M. Brignoni-Tran, PhD, of my staff at (212) 637-3943.

Sincerely,

A handwritten signature in blue ink, appearing to read 'D. McKenna', with a long horizontal flourish extending to the right.

Douglas McKenna, Chief  
Water Compliance Branch

Enclosures


cc: Patricia Gardner, NJDEP  
Donald Hirsch, NJDEP  
Rai Belonzi, NJDEP





FINAL FILE REVIEW REPORT  
NEW JERSEY AMERICAN WATER - RARITAN  
PWS ID: NJ2004002  
BRIDGEWATER, NEW JERSEY



Prepared by  
U.S. Environmental Protection Agency  
Region 2  
New York, New York

  
Rosa M. Brignoni-Tran, Inspector

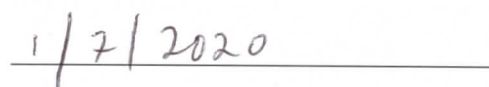
  
Kara M. Sinon, Inspector

  
Michael Lowy, Inspector

Approved by:

Date:

  
Nicole Foley Kraft, Chief  
Groundwater Compliance Section

  
1/7/2020



# **Public Water System File Review Report**

## **NJ American Water Raritan Public Water System (NJ2004002)**

### **Introduction**

Beginning on February 11, 2019, PG Environmental and EPA conducted an inspection at the NJAW Raritan public water system (PWS). An inspection report summarizing potential noncompliance items, significant deficiencies and observations for the physical inspection of system components was issued on September 5, 2019. During the week of May 13, 2019, EPA and NJDEP conducted a file review of records pertaining to compliance with the Safe Drinking Water Act (SDWA) and applicable regulations for the compliance period of January 1, 2017 through March 31, 2019. This file review report supplements the September 5, 2019 inspection report and summarizes potential noncompliance items, significant deficiencies and observations identified during the review of monitoring data and records, including storage tank inspection reports.

A significant deficiency includes a defect in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that EPA determines to be causing, or has the potential for causing the introduction of contamination into the water delivered to consumers.

EPA inspectors, Rosa M. Brignoni-Tran, Michael Lowy and Kara M. Sinon, and NJDEP inspector Leronda Aviles, met with Scott Baxter-Green (Water Quality-Environmental Supervisor), Oleg Kostin (Senior Manager Licensed Operator), Cassandra Malone (Laboratory Supervisor), Anthony Matarazzo (Director Water Quality- Environmental Management) and Sunil Patil (Water Quality Supervisor). NJDEP inspector Manfred Amissah participated in the opening conference and review of records on May 13, 2019.

### **Potential Non-Compliance Items**

#### **Stage 1 DBP Rule**

1. Pursuant to 40 C.F.R. §141.132(f), each system required to monitor under 40 C.F.R. Part 141 Subpart L, must develop and implement a monitoring plan showing specific locations and schedules for any parameter included in this subpart and how the system will calculate compliance with Maximum Contaminant Levels (MCLs), Maximum Residual Disinfectant Levels (MRDLs) and treatment techniques. The system must maintain the plan and make it available for inspection. Pursuant to 40 C.F.R. §141.132(a)(3), failure to monitor in accordance to the monitoring plan is a monitoring violation.

Based on a review of the July 9, 2002 (Attachment C) Stage 1 Disinfectants and Disinfection Byproducts Rule monitoring plan, information pertaining to the monitoring for bromate and Total Organic Carbon (TOC), including sampling location(s), schedule and how compliance will be calculated, was not included.



2. Pursuant to 40 C.F.R. §141.133(a)(2), all samples taken and analyzed under the provisions of 40 C.F.R. Part 141 Subpart L must be included in determining compliance, even if that number is greater than the minimum required.

Based on a review of TOC data, NJAW Raritan collected and analyzed multiple samples for TOC raw/treated and alkalinity on specific days (one set of monitoring was conducted by the RM laboratory; a second set of monitoring was conducted by the Belleville laboratory); however, only one set of the monitoring data was reported to NJDEP (See Attachment D for example of TOC monitoring conducted on April 4, 2018).

#### Lead and Copper Rule

3. Sample Collection and Reporting: In accordance with 40 C.F.R. §141.86(b)(2), each first draw sample for lead and copper shall be one liter in volume and have stood motionless in the plumbing system of each sampling site for at least six hours.

Based on the data reviewed, NJAW Raritan did not provide information demonstrating that all tap samples met the 6-hour requirement for the 2016 and 2017 monitoring events. EPA notes improvement in 2018 with regard to this observation. (See Attachment E for examples).

#### Surface Water Treatment Rules- Chlorine Residual Concentration in the Distribution System

4. Pursuant to 40 C.F.R. §141.75(b)(2)(C), a public water system that uses a surface water source and provides filtration treatment must report monthly to the state the number of instances where the residual disinfectant concentration is measured but not detected and heterotrophic plate count (HPC) is not measured.

Based on a review of monitoring data, during at least the months of September 2016 and January 2017, NJAW Raritan failed to report to the State the number of samples where the residual disinfectant concentration was not detected and HPC was not measured. For example, a sample collected at Tiger Mart on September 21, 2016 (Sample 33478211) did not detect chlorine residual and a review of laboratory records show that HPC analysis was not conducted. A review of the Disinfectant Residual Report Form submitted to NJDEP show that this monitoring result was not reported to NJDEP. In addition, a sample collected at Gino Tire Service on January 5, 2017 (Sample 34542143) did not detect chlorine residual and a review of laboratory documentation shows that HPC analysis was not conducted. A review of the Disinfectant Residual Report Form submitted to NJDEP show that this monitoring result was not reported to NJDEP. (Attachment F)

### Consumer Confidence Report (CCR)

5. Pursuant to 40 C.F.R. §141.153(d): information for detected contaminants to be included in each consumer confidence report includes contaminants subject to MCL, action level, maximum residual disinfectant level, or treatment technique (regulated contaminants). Pursuant to 40 C.F.R. §141.131(b)(2)(iv), laboratories that use EPA method 317 Revision 2, must meet a 0.0010 mg/L minimum reporting level for bromate.

The review of bromate monitoring data identified instances when the level detected is greater than 0.0010 mg/L for individual samples. The 2017 and 2018 CCRs do not contain information on bromate.

6. Pursuant to 40 C.F.R. §141.153(d)(3)(i), where a system is allowed to monitor for regulated contaminants less often than once a year, the table(s) must include the date and results of the most recent sampling event and the report must include a brief statement indicating that the data presented in the report are from the most recent testing done in accordance with the regulations. No data older than five years need to be included.

Based on a review of the 2018 CCR, NJAW Raritan did not include all detected contaminants, going back five years. For example, NJAW Raritan monitored for and detected radionuclide contaminants in 2017. A review of the 2018 CCR does not include radionuclide data as required.

### **Significant Deficiencies**

7. **Standard Operating Procedures and Internal Inspections of Finished Water Storage Facilities:** On May 30, 2019, EPA issued a notice of significant deficiency related to the lack of internal inspections for most of the NJAW Raritan finished water storage facilities. The notice required NJAW Raritan to submit an action plan for the internal inspection of finished water storage facilities that have not been inspected since January 2014 and the development of Standard Operating Procedures (SOPs) to ensure routine inspections and preventive maintenance of storage facilities. In letter dated July 25, 2019, NJAW Raritan established a deadline of November 29, 2019 to complete the SOP and submitted a deadline of 5-10 years as an action plan for the completion of internal inspections at 40 storage tanks.., The action plan for the inspection of 40 storage facilities submitted is not acceptable as it failed to provide interim actions and milestones to enable EPA and NJDEP to ensure that inspections are being conducted. A more detailed action plan needs to be submitted for approval.

EPA and NJDEP are reviewing the document “Water Storage Tank Monitoring and Inspection Practice”, submitted by NJAW Raritan on November 22, 2019, detailing standard operating procedures for the inspection of finished water storage facilities.

8. **External Inspections of Storage Tanks:** Based on a review of external inspection reports of finished water storage facilities submitted to EPA, significant deficiencies were identified for the Kenilworth, Starview Drive and Terhune Tanks. NJAW Raritan did not

provide certification that significant deficiencies identified were corrected or an action plan for their correction.

The following reports were not provided: Hummocks Clearwell 1MG (2 reports for the Hummocks clearwells 5MG were provided), Jerusalem Road Reservoir and Jerusalem Road Tank (a Jerusalem Road inspection report was provided but it does not specify the storage tank inspected) (Attachment B).

9. **Internal Inspections of Storage Tanks:** Based on a review of the comprehensive inspection reports for the Hummocks Water sphere, Johnston Drive High, Mount Lucas, Oak Tree 1, Oak Tree 2 and Sheep Hill storage tanks, significant deficiencies were identified. NJAW did not provide certification that significant deficiencies identified were corrected or an action plan for their correction.

Review of documentation submitted for Cedar Grove, Cranbury Township, Princeton 1, Princeton 2 and RCA storage tanks did not include an internal inspection report. Information provided included, but is not limited to bid documentation, rehabilitation contracts, reports for inspections conducted prior to 2014, specifications for rehabilitation/painting and repair punch lists.

### **Observations**

10. Based on the review of Lead and Copper Rule (LCR) monitoring data for the July – December 2017 monitoring period, the lead result for 1120 Bleacher was 0.017 mg/L. It was observed that this location was not included in the 2018 sampling. Based on information provided by NJAW Raritan this sample location was overlooked when the system went from standard to reduced monitoring and NJAW Raritan plans to include this location in the monitoring to be conducted in 2019.
11. Based on a review of LCR data, the lead results for 1976 Ernst Terrace and 126 Williamson were greater than 0.015 mg/L for the samples collected during 2016 and/or 2017. It is observed that these locations were not included in the 2018 sampling. Based on information provided by NJAW Raritan, these locations were removed from the sampling pool. A review of form BSDW18 provided to EPA by NJAW Raritan and NJDEP, indicate both locations as active (1976 Ernst Terrace and 126 Williamson Ave are identified as Sample Points PBCU56 and PBCU115, respectively).
12. Based on EPA's review of the January 10, 2017 Lead and Copper Sampling Plan, it is recommended that the Plan be updated to incorporate current information and practices. For example, the plan states that "If the service line on the customer owned portion is found to be lead, NJAW will offer free replacement of the customer owned portion of the service line". Based on conversations with NJAW Raritan, this is no longer a current practice.



13. Lead Consumer Notification (CN): In accordance with 40 C.F.R. §141.85(d)(3), CN documents must include, among other things, an explanation of the lead health effects. A review of NJAW Raritan CN documents shows that health effects language from 40 C.F.R. Part 141 Subpart O Appendix A is included: “Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure”. However, it is more appropriate to include the health effects language used in 40 C.F.R. §141.85, “Health effects of lead. Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother’s bones, which may affect brain development”. NJDEP has developed consumer notice of tap results template documents which can be found on their website under the Division of Water Supply and Geoscience Sampling & Regulatory forms and at the following link: <https://www.state.nj.us/dep/watersupply/dws-sampreg.html>.
14. VOC monitoring: Based on a review of VOC data provided, NJAW Raritan is monitoring for VOCs more than is required. It is observed that not all of the VOC monitoring data is reported to NJDEP. Based on information provided by NJAW Raritan, VOC monitoring is conducted monthly at treatment plants with treatment for VOCs. NJAW Raritan reports to NJDEP for SDWA compliance data collected during the first month of every quarter and identifies the remaining samples as process samples.
15. Disinfection Contact Time (CT) Calculations: NJDEP provided EPA with information regarding disinfection contact time calculations and Giardia/virus log inactivation for the Raritan Millstone and the Canal Road treatment plants. NJAW Raritan provided CT calculations for 13 ground water treatment plants, copies of the 1990 tracer study for the Raritan Millstone treatment plant and the 1997 and 2011 tracer studies for the Canal Road treatment plant. Based on the evaluation of the data submitted:
- a. The lack of a narrative explaining how CT is calculated and supporting documentation for the many factors utilized (volumes of each component, baffling factors, equations/formulas, etc) make it difficult to recreate the calculations for the Raritan Millstone treatment plant.
  - b. The chlorine residual monitoring data used in the Raritan Millstone treatment plant’s CT calculation is based on grab sampling conducted at the basins’ effluent and the

suction wet wells. It is unclear if this information is being provided to NJDEP as part of the Monthly Operating Report.

- c. On email dated October 11, 2019, NJAW Raritan indicated that detention mains will be installed at the Papen Road and Wells Road treatment plants in order to provide the 5 minutes contact time required by N.J.A.C. 7:10-11.16(e). Note that reconfigurations to the treatment plants require a permit from NJDEP prior to any modification, in accordance to N.J.A.C. 7:10-11.5(a).

## ATTACHMENT A



Table 1: Turbidity Spikes over 1.0 NTU			
Canal Road Treatment Plant			
Filter #	Date & Time	IFE (NTU)	Notes
Filter 4	16-Nov-18 13:30:05	4.1917	DW
	16-Nov-18 13:45:05	4.1917	DW
	16-Nov-18 14:00:05	4.1917	DW
	16-Nov-18 14:15:05	4.1917	DW
Filter 6	29-Nov-18 19:45:05	3.4212	DW
	29-Nov-18 20:00:05	3.4212	DW
	29-Nov-18 20:15:05	3.4212	DW
	29-Nov-18 20:30:05	3.4212	DW
	29-Nov-18 19:30:05	1.5604	DW

Table 2: Turbidity Spikes over 1.0 NTU			
Raritan Millstone Treatment Plant			
Filter 5	28-Oct-18 03:30:05	2.3182	Filter # 5 spike of 3.211 at 2:44am for 2 mins
	28-Oct-18 03:45:05	2.3182	Filter # 5 spike of 3.211 at 2:44am for 2 mins
	28-Oct-18 04:00:05	2.3182	Filter # 5 spike of 3.211 at 2:44am for 2 mins
Filter 8	26-Jul-16 15:30:05	2.3590	Filter 16 spike of 0.5 NTU@2:25 and taken OOS @2:26 and backwash initiated Filter i.s. @ 3:17 w/ 0.16ntu. Max reading was 2.35 NTU while OOS during backwash.
	26-Jul-16 15:45:05	2.3590	Filter 16 spike of 0.5 NTU@2:25 and taken OOS @2:26 and backwash initiated Filter i.s. @ 3:17 w/ 0.16ntu. Max reading was 2.35 NTU while OOS during backwash.
	02-Nov-17 05:15:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 05:30:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 05:45:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 06:00:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 06:15:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 06:30:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 06:45:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 07:00:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.

Table 2: Turbidity Spikes over 1.0 NTU			
	02-Nov-17 07:15:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 07:30:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 07:45:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 08:00:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 08:15:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 08:30:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 08:45:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 09:00:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 09:15:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 09:30:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 09:45:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 10:00:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 10:15:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 10:30:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 10:45:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 11:00:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 11:15:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 11:30:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 11:45:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 12:00:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.

Table 2: Turbidity Spikes over 1.0 NTU			
	02-Nov-17 12:15:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 12:30:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 12:45:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 13:00:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 13:15:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 13:30:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 13:45:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 14:00:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
	02-Nov-17 14:15:05	1.9185	Filter 8 max read 1.91, 0.5@ 5:07, o.o.s. @ 5:08, i.s. @ 8:25, @ 0.123ntu.
Filter 10	01-Oct-18 17:30:05	1.9673	Filter #10 spike of 4.994 at 8:02 am taken off line by 8:06 am "4mins"
	01-Oct-18 17:45:05	1.9673	Filter #10 spike of 4.994 at 8:02 am taken off line by 8:06 am "4mins"

**ATTACHMENT B**

# NJ AMERICAN WATER RARITAN

## FINISHED WATER STORAGE FACILITIES INSPECTION REPORTS

	Water Storage Facility	Capacity (MG)	Type of Facility	Date-Constructed	Interior Inspected	Report provided to EPA as part of May 2019 Sanitary Survey	Exterior Inspected	Exterior Report provided to EPA as part of May 2019 Sanitary Survey
1	Bridgewater (Rt. 206) Tank	1.75	Reservoir	1974	1992	No report available. Pending submittal of action plan.	2/20/2019 5/16/2019	Yes
2	Cambridge Lane		Standpipe		N/A. Demolished 8/21/2017			
3	Canal Road Backwash Tank	1.25	Wash Water	1995	01/01/11	Not in EPA file. Pending submittal of action plan IF THIS IS A FINISHED WATER STORAGE FACILITY.	03/08/19	No In EPA file
4	Cedar Grove Tank (Branchburg)	1.00	Standpipe	1967	03/15/14	Not in EPA file. April 17, 2014 bidding contract documents & specifications for rehab/repainting submitted, but do not see the internal inspection report. Pending submittal of inspection report and certification that significant deficiencies (SDs) have been corrected or an action plan for their correction.	02/21/19	Yes
5	Coles Ave. Tank	0.20	Standpipe	1941	1990	No report available. Pending submittal of action plan.	02/22/19	Yes
6	Cranbury Twp. Tank	1.50	Elevated	1990	1/1/2016	Not in EPA File. Pending submittal of inspection report and certification of correction of SDs or an action plan for their correction	02/19/19	Yes
7	Drakes Corner (0.145MG)	0.15	Standpipe	1954	None on file	No report available. Pending submittal of action plan.	02/19/19	Yes
8	Drakes Corner (2.25MG)	2.25	Reservoir	1993	1993	No report available. Pending submittal of action plan.	02/19/19	Yes
9	Harrison St. Clearwell	1.00	Clearwater	1930	N/A. Facility removed from service and demolished.			
10	Hilltop at Raritan	0.25	Elevated	2013	2013	No report available. Pending submittal of action plan.	02/21/19	Yes
11	Hi-Tor Tank	0.35	Standpipe	1963	1994	No report available. Pending submittal of action plan.	2/23/2019	Yes
12	Hummocks Clearwell	1.00	Clearwater	1951	None on file	No report available. Pending submittal of action plan.	02/22/19	2 reports provided for the Hummocks clearwells 5 MG, it is unclear if one of the reports is for the Hummock Clearwell 1MG
13	Hummocks Reservoir	5.00	Clearwater	1967	03/01/12	No report available. Pending submittal of action plan.	02/22/19	



## NJ AMERICAN WATER RARITAN

### FINISHED WATER STORAGE FACILITIES INSPECTION REPORTS

	Water Storage Facility	Capacity (MG)	Type of Facility	Date-Constructed	Interior Inspected	Report provided to EPA as part of May 2019 Sanitary Survey	Exterior Inspected	Exterior Report provided to EPA as part of May 2019 Sanitary Survey
14	Hummocks Watersphere	0.25	Elevated	1965	03/10/17	Date of interior inspection provided in column to the left was 6/12/2009. EPA was provided with a tank report dated 3/10/2017, updated column date. Safety/OSHA, sanitary deficiencies and significant deficiencies (SD) identified. Pending submittal of certification that SDs were corrected or an action plan for their correction.	02/22/19	Yes
15	Hunterdon Medical Center High	0.70	Reservoir	1993	1993	No report available. Pending submittal of action plan	02/21/19	Yes
16	Hunterdon Medical Center Low	3.38	Reservoir	1993	1993	No report available. Pending submittal of action plan	02/21/19	Yes
17	Jefferson Park #1 Tank	0.10	Clearwater	1969	11/15/13	No in EPA File. Pending submittal of action plan.	02/19/19	Yes
18	Jefferson Park #2 Tank	0.46	Clearwater	1985	08/08/12	No In EPA File. Pending submittal of action plan.	02/19/19	Yes
19	Jerusalem Road Reservoir	12.50	Reservoir	1914	None on file	No report available. Pending submittal of action plan		1 Inspection Report provided, but does not identify which storage tank.
20	Jerusalem Road Tank	1.50	Standpipe	1961	1988	No report available. Pending submittal of action plan		
21	Johnston Drive High Tank	0.50	Standpipe	1956	8/3/2015	Inspection report submitted. Safety/OSHA and significant deficiencies identified. Pending submittal of certification that SD were corrected or an action plan for their correction.	02/23/19	Yes
22	Johnston Drive Low Tank	0.80	Reservoir	1899	04/01/08	No report available. Pending submittal of action plan.	02/22/19	Yes
23	Kenilworth Tank	2.00	Standpipe	1940	1984	No report available. Pending submittal of action plan.	02/22/19	Yes. Pending certification of SD correction or submittal of action plan for its correction.
24	Kildee Tank	1.00	Standpipe	1967	1992	No report available. Pending submittal of action plan	02/18/19	Yes
25	Logan Road Tank	1.00	Reservoir	1987	None on file	No report available. Pending submittal of action plan	02/20/19	Yes

# NJ AMERICAN WATER RARITAN

## FINISHED WATER STORAGE FACILITIES INSPECTION REPORTS

	Water Storage Facility	Capacity (MG)	Type of Facility	Date-Constructed	Interior Inspected	Report provided to EPA as part of May 2019 Sanitary Survey	Exterior Inspected	Exterior Report provided to EPA as part of May 2019 Sanitary Survey
26	Manville North 19th Ave. Tank	1.00	Elevated	1973	06/22/06	Not in EPA file. Pending submittal of action plan	02/21/19	Yes
27	Martinsville	0.95	Reservoir	1990	None on file	No report available. Pending submittal of action plan	02/23/19	Yes
28	Mount Horeb Tank	0.49	Standpipe	1963	None on file	No report available. Pending submittal of action plan	02/23/19	Yes
29	Mount Lucas Tank	3.00	Reservoir	1982	5/11/2019	Inspection report submitted. Safety/OSHA and significant deficiencies identified. Pending submittal of certification that SD were corrected or an action plan for their correction.	02/19/19	Yes
30	Mountain Station Tank	0.06	Clearwater	1965	5/04/07	No In EPA file. Pending submittal of action plan	2/23/19	Yes
31	Netherwood Clearwell	1	Clearwater	1913	5/06/19	Inspection report submitted. Condition assessment dated 8/26/2019 stating repairs were completed.	5/06/19	Yes
32	Netherwood Clearwell	0.5	Clearwell	1910	5/06/19	Inspection report submitted. Condition assessment dated 8/26/2019 stating repairs were completed.	5/06/19	Yes
33	Oak Tree #1	10	Reservoir	1968	9/08/17	Inspection report submitted. Safety/OSHA and significant deficiencies identified. Pending submittal of certification that SD were corrected or an action plan for their correction.	2/23/19	Yes
34	Oak Tree #2	10	Reservoir	1963	6/07/17	Inspection report submitted. Safety/OSHA and significant deficiencies identified. Pending submittal of certification that SD were corrected or an action plan for their correction.	2/23/19	Yes
35	Oak Tree (1 MG)	0.9	Standpipe	1958	None on file	No report available. Pending submittal of action plan	2/23/19	Yes
36	Oak Tree (5 MG)	5	Reservoir	1955	None on file	No report available. Pending submittal of action plan	2/23/19	Yes

# NJ AMERICAN WATER RARITAN

## FINISHED WATER STORAGE FACILITIES INSPECTION REPORTS

	Water Storage Facility	Capacity (MG)	Type of Facility	Date-Constructed	Interior Inspected	Report provided to EPA as part of May 2019 Sanitary Survey	Exterior Inspected	Exterior Report provided to EPA as part of May 2019 Sanitary Survey
37	Pottersville Tank	1	Reservoir	1981	None on file	No report available. Pending submittal of action plan		
38	Princeton (Rt 206) #1	7.13	Reservoir	1995	6/30/16	A bid document submitted to EPA, but not the inspection report. Pending submittal of inspection report and certification that SDs were completed or an action plan for their correction.	2/19/19	Yes
39	Princeton (Rt 206) #2	7.13	Reservoir	1995	4/06/17	An inspection report from 2013/2014 and bid document from 2016 submitted. Pending submittal of 2017 inspection report and certification that SD were corrected or an action plan for their correction.	2/19/19	Yes
40	Prospect Avenue Tank	0.5	Standpipe	1968	5/23/13	No In EPA file. Pending submittal of action plan.	2/22/19	Yes
41	Raritan Millstone WTP Backwash #1	0.846	Backwash	1981	9/19/11	Not in EPA file. Pending submittal of action plan IF THIS A FINISHED WATER STORAGE FACILITY.	3/08/19	Yes
42	Raritan Millstone WTP Backwash #2	0.82	Backwash	2008	12/31/08	No report available. Pending submittal of action plan IF THIS IS A FINISHED WATER STORAGE FACILITY.	3/8/2019 3/11/2019	Yes
43	RCA Tank	0.35	Standpipe	1959	3/01/18	Copy of rehabilitation contract provided, but not the inspection report. Pending submittal of inspection report and certification that SDs were corrected and an action plan for their correction.	2/20/19	Yes
44	Readington Tank	3.141	Standpipe	1991	None on file	No report available. Pending submittal of action plan.	2/21/2019	Yes
45	Rector Road Tank	0.2	Standpipe	1962	None on file	No report available. Pending submittal of action plan.	2/20/19	Yes
46	Sheep Hill Tank	1.184	Standpipe	1990	5/10/2019	Inspection report submitted. Pending certification that SDs have been corrected or an action plan for their correction.	5/10/2019	Yes
47	Springfield Clearwell	1	Clearwell	1933	2004	No report available. Pending submittal of action plan		Yes

# NJ AMERICAN WATER RARITAN

## FINISHED WATER STORAGE FACILITIES INSPECTION REPORTS

	Water Storage Facility	Capacity (MG)	Type of Facility	Date-Constructed	Interior Inspected	Report provided to EPA as part of May 2019 Sanitary Survey	Exterior Inspected	Exterior Report provided to EPA as part of May 2019 Sanitary Survey
48	Starview Drive Tank	0.2	Reservoir	1984		No report available. Pending submittal of action plan.	2/20/19	Yes. Pending certification of correction of SD or submittal of an action plan
49	Stoney Brook Tank #1	0.235	Clearwell	1987	12/31/12	No report available. Pending submittal of action plan.	2/19/19	Yes
50	Stoney Brook Tank #2	0.385	Clearwell	1987	12/31/12	No report available. Pending submittal of action plan.	2/19/19	Yes
51	Terhune Tank	0.5	Elevated	1957	5/03/07	Not in EPA file. Pending submittal of action plan.	2/19/19	Yes. Pending certification of correction of SD or submittal of an action plan.
52	Thompson Ave. Tank	1.61	Reservoir	1988	None on file	No report available. Pending submittal of action plan.	2/23/19	Yes
53	Washington Avenue Tank	0.11	Standpipe	1900	None on file	No report available. Pending submittal of action plan	4/04/19	Yes
54	Washington Valley Tank #1	1	Standpipe	1969	None on file	No report available. Pending submittal of action plan	2/20/19	Yes
55	Washington Valley Tank #2	0.818	Standpipe	2001	None on file	No report available. Pending submittal of action plan.	2/20/19	Yes

**STEEL TANK INSPECTION REPORT**  
**FLAT BOTTOM TANK**

**I. TANK DATA**

TANK NAME: JERUSALEM RD

TANK LOCATION: Street \_\_\_\_\_  
City \_\_\_\_\_

TANK SIZE: Capacity \_\_\_\_\_ MG.

CONSTRUCTION: Type of Structure - Reservoir, Standpipe, Elevated (circle one)

INSPECTED BY: ALPINE PAINTING & N.J.A.W. DATE: 2/22/19

**II. INSPECTION DATA**

**FOUNDATION:**

	Yes	No
Concrete chipped or cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Grout chipped or cracked	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indications of settlement	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indications of leakage	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undermining of foundation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation growing through concrete?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Good	Fair	Poor
Site drainage relative to foundation integrity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of valve vault	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**EXTERIOR:**

**Shell:**

	Yes	No
Grounded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there rusting or pitting?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Good	Fair	Poor	N/A
Condition of top coat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Riveted? Give condition of laps and rivets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Bottom angle:</b>				
Condition of top coat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Anchor bolts and anchor bolt chairs:</b>				
Condition of top coat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of primer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Columns and struts:</b>				
	Yes	No	N/A	
Is there rusting or pitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Good	Fair	Poor	N/A
Condition of struts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of columns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of column connection to tank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Rods and pins:</b>				
	Yes	No	N/A	
Is there rusting or pitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are they adjusted correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Good	Fair	Poor	N/A
Condition of pins, turnbuckles, threads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Cylinder riser/Pedestal:</b>				
	Yes	No	N/A	
Is there rusting or pitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

	Good	Fair	Poor	N/A
Condition of top coat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of primer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Tank bottom (belly/cone):**

	Yes	No	N/A
Is there rusting or pitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Good	Fair	Poor	N/A
Condition of top coat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of primer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ACCESSORIES:**

**Overflow pipe: top section (outlet from tank to air gap)**

	Yes	No
Does overflow pipe have a Tideflex security check valve?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Good	Fair	Poor
Condition of top coat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Type of discharge outlet? (check one)**

Tideflex check valve ☐

Hinged flap with screen ☐

Screened outlet ☒

	Good	Fair	Poor	N/A
Condition of screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of hinged flap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



**Overflow pipe: bottom section (air gap to point of discharge)**

	Yes	No
Is there at least a 6 inch air gap?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the pipe terminate at least 6 inches but not more than 36 inches above ground?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Shell ladder and/or cage:**

	Yes	No	N/A	
Vandal deterrent?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Locked?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Side plates?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Safety climb device?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Notched rail?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the ladder appear safe?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	Good	Fair	Poor	N/A
Condition of coating on ladder	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Shell manholes:**

Condition of top coat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Balcony and handrail:**

Balcony and handrail:	Yes	No	N/A	
Is there rusting or pitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Good	Fair	Poor	N/A
Condition of balcony floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of toe plate or channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of handrail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Roof Vent:**

Type: (check one)

Standard

☒

Pressure Vacuum

☐

Not visible

☐**SITE CONDITIONS:**

	Yes	No	N/A	
Is there a fence?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	Good	Fair	Poor	N/A
Condition of fence?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of grounds?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Condition of access drive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No	N/A	
Debris on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Gate locked?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Obstructions within 10 feet of tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Do trees/vegetation need to be trimmed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

**III CONCLUSIONS**

**INSPECTION SUMMARY AND RECOMMENDATIONS:** (please highlight or otherwise denote, repairs which in your opinion should be performed immediately or on an emergency basis):

	Good	Fair	Poor
Overall condition of coating system	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Yes	No	
Any conditions that require immediate Attention?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Indication of operational problems: \_\_\_\_\_

Foundation - \_\_\_\_\_

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Structural - \_\_\_\_\_

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Metal - \_\_\_\_\_

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Site - \_\_\_\_\_

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**Recommendations for cleaning and painting:**

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**STEEL TANK INSPECTION REPORT**  
**FLAT BOTTOM TANK**

**I. TANK DATA**

TANK NAME: HUMMOCKS CLEARWELL (STEEL)

TANK LOCATION: Street \_\_\_\_\_

City \_\_\_\_\_

TANK SIZE: Capacity 5,000,000 ~~gals.~~

CONSTRUCTION: Type of Structure - Reservoir, Standpipe, Elevated (circle one)

INSPECTED BY: \_\_\_\_\_ DATE: 2/22/19

**II. INSPECTION DATA**

**FOUNDATION:**

	Yes	No
Concrete chipped or cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Grout chipped or cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indications of settlement	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indications of leakage	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undermining of foundation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vegetation growing through concrete?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

	Good	Fair	Poor
Site drainage relative to foundation integrity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of valve vault	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**EXTERIOR:**

Shell: \_\_\_\_\_

	Yes	No
Grounded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there rusting or pitting?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Overflow pipe: bottom section (air gap to point of discharge)**

	Yes	No
Is there at least a 6 inch air gap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does the pipe terminate at least 6 inches but not more than 36 inches above ground?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Shell ladder and/or cage:**

	Yes	No	N/A
Vandal deterrent?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Locked?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Side plates?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety climb device?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Notched rail?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does the ladder appear safe?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Good	Fair	Poor
Condition of coating on ladder	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Shell manholes:**

Condition of top coat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Balcony and handrail:**

	Yes	No	N/A
Is there rusting or pitting?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Good	Fair	Poor
Condition of balcony floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of toe plate or channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of handrail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Good	Fair	Poor	N/A
Condition of top coat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Tank bottom (belly/cone):**

	Yes	No	N/A
Is there rusting or pitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Good	Fair	Poor	N/A
Condition of top coat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**ACCESSORIES:**

**Overflow pipe: top section (outlet from tank to air gap)**

	Yes	No	
Does overflow pipe have a Tideflex security check valve?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Good	Fair	Poor
Condition of top coat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Type of discharge outlet? (check one)**

Tideflex check valve	<input checked="" type="checkbox"/>
Hinged flap with screen	<input type="checkbox"/>
Screened outlet	<input type="checkbox"/>

	Good	Fair	Poor	N/A
Condition of screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of hinged flap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Roof Vent:**

Type: (check one)

Standard

☒

Pressure Vacuum

☐

Not visible

☐**SITE CONDITIONS:**

	Yes	No	N/A	
Is there a fence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Good	Fair	Poor	N/A
Condition of fence?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of grounds?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Condition of access drive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Yes	No	N/A	
Debris on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Gate locked?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Obstructions within 10 feet of tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Do trees/vegetation need to be trimmed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

**III CONCLUSIONS**

**INSPECTION SUMMARY AND RECOMMENDATIONS:** (please highlight or otherwise denote, repairs which in your opinion should be performed immediately or on an emergency basis):

	Good	Fair	Poor
Overall condition of coating system	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No	
Any conditions that require immediate Attention?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Indication of operational problems: \_\_\_\_\_



Foundation -

Structural -

Metal -

Site -

**Recommendations for cleaning and painting:**



**STEEL TANK INSPECTION REPORT**  
**FLAT BOTTOM TANK**

**I. TANK DATA**

TANK NAME: HUMMOCKS CLEARWELL (STEEL)

TANK LOCATION: Street 1750 MORRIS AVE  
City UNION

TANK SIZE: Capacity 5,000,000 ~~gals~~

CONSTRUCTION: Type of Structure - Reservoir, Standpipe, Elevated (circle one)

INSPECTED BY: NSAW / ALPINE DATE: 2/22/19

**II. INSPECTION DATA**

**FOUNDATION:**

	Yes	No
Concrete chipped or cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Grout chipped or cracked	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indications of settlement	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indications of leakage	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Undermining of foundation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vegetation growing through concrete?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

	Good	Fair	Poor
Site drainage relative to foundation integrity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of valve vault	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**EXTERIOR:**

**Shell:**

	Yes	No
Grounded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there rusting or pitting?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Good	Fair	Poor	N/A
Condition of top coat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Riveted? Give condition of laps and rivets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Bottom angle:</b>				
Condition of top coat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of primer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Anchor bolts and anchor bolt chairs:</b>				
Condition of top coat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of primer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Columns and struts:</b>				
Is there rusting or pitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Good	Fair	Poor	N/A
Condition of struts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of columns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of column connection to tank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Rods and pins:</b>				
Is there rusting or pitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are they adjusted correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Good	Fair	Poor	N/A
Condition of pins, turnbuckles, threads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Cylinder riser/Pedestal:</b>				
Is there rusting or pitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

	Good	Fair	Poor	N/A
Condition of top coat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Tank bottom (belly/cone):**

	Yes	No	N/A
Is there rusting or pitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Good	Fair	Poor	N/A
Condition of top coat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**ACCESSORIES:**

**Overflow pipe: top section (outlet from tank to air gap)**

	Yes	No
Does overflow pipe have a Tideflex security check valve?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

	Good	Fair	Poor
Condition of top coat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Type of discharge outlet? (check one)**

Tideflex check valve ☒

Hinged flap with screen ☐

Screened outlet ☐

	Good	Fair	Poor	N/A
Condition of screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of hinged flap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Overflow pipe: bottom section (air gap to point of discharge)**

	Yes	No
Is there at least a 6 inch air gap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does the pipe terminate at least 6 inches but not more than 36 inches above ground?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Shell ladder and/or cage:**

Shed ladder and/or cage:		Yes	No	N/A	
Vandal deterrent?		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Locked?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Side plates?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Safety climb device?		<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Notched rail?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Cable?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the ladder appear safe?		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
		Good	Fair	Poor	N/A
Condition of coating on ladder		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Shell manholes:**

Condition of top coat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of primer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of metal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Balcony and handrail:**

balcony and handrail:				
	Yes	No	N/A	
Is there rusting or pitting?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Good	Fair	Poor	N/A
Condition of balcony floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of toe plate or channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of handrail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Roof Vent:**

Type: (check one)

Standard

☒

Pressure Vacuum

☐

Not visible

☐**SITE CONDITIONS:**

	Yes	No	N/A	
Is there a fence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Good	Fair	Poor	N/A
Condition of fence?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Condition of grounds?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Condition of access drive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Yes	No	N/A	
Debris on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Gate locked?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Obstructions within 10 feet of tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Do trees/vegetation need to be trimmed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

**III CONCLUSIONS**

**INSPECTION SUMMARY AND RECOMMENDATIONS:** (please highlight or otherwise denote, repairs which in your opinion should be performed immediately or on an emergency basis):

	Good	Fair	Poor
Overall condition of coating system	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No	
Any conditions that require immediate Attention?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Indication of operational problems: \_\_\_\_\_



Foundation - \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Structural - \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Metal - \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Site - \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Recommendations for cleaning and painting:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## ATTACHMENT C



**Elizabethtown Water Company**

*Raritan-Millstone Plant:*

P.O. Box 102, Bound Brook, NJ 08805-0102

Tel: (908) 654-1234; Fax: (732) 563-9419

*Canal Road Plant:*

701 Randolph Road, Somerset, NJ 08873

Tel: (908) 654-1234; Fax: (732) 271-1683

July 9, 2002

S.J. Pudney

NJDEP - Water Supply Element

Bureau of Safe Drinking Water

P.O. Box 426

401 East State St., Floor 3

Trenton, NJ 08625-0426

Return Receipt: 7001 1140 0000 2004 9432

**Re: Elizabethtown Water Company - PWSID 2004002**

***Stage 1 DBP Rule Monitoring Plan***

Dear Steven:

In response to your letter of June 17, 2002 attached please find the Disinfection Byproducts Monitoring Plan for the Elizabethtown Water Company (PWSID 2004002) and its two consecutive systems the Liberty Water Company (PWSID 2004001) and the Edison Water Company (PWSID 1205001). As specified by § 141.132 (f) the plan contains the following elements; 1.) Specific locations and schedules for collecting samples and 2.) how the system will calculate compliance with MCLs, MRDLs, and treatment techniques.

The Elizabethtown Water Company serves an estimated population of 606,447 and is approximately 90% surface water from the Raritan River with the remaining 10% coming from wells throughout its service territory. The system is comprised of twenty-four pressure zones of which nine "major" distribution areas have been identified. Four sampling locations per "major" distribution area have been selected ( one maximum residence time and three average residence time) for a total of thirty-six sampling locations.

The Liberty Water Company and Edison Water Company serve an estimated population of 120,000 and 35,000, respectively. Both are wholly bulk-purchased systems which receive the majority of their water from the Elizabethtown Water Company via the 273 HGL Zone. Water from this zone is all surface water from the Raritan River with no influence from groundwater.

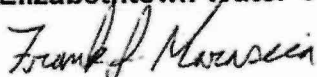
Samples are collected by Elizabethtown Water Company personnel and analyzed by our New Jersey Certified Laboratory (Certification # 18024). Trihalomethanes are analyzed by E.P.A Method 524.2 and Haloacetic Acids are analyzed by E.P.A. Method 552.2. The data is managed and maintained by the Laboratory Supervisor and the Water Quality Specialist. Data bases are maintained to determine minimums, maximums, and averages for

compliance. In addition we also maintain board maps on site showing the spatial distribution of our monitoring locations within our systems. These maps are available for review upon request.

If you have any questions regarding this matter, please call me at 1-908-301-3163.

Very truly yours,

**Elizabethtown Water Company**



Frank J. Marascia

Water Quality Specialist I

Cc: Ade Oguntala, NJDEP-BSDW

## 2002 - QTRLY DISTRIBUTION THM & HAA MONITORING

524.2, 551.1 and 552.2 in house, with QC.

\*2 Plants + Source Water done as per "Monthly Internal DBP & TOC Monitoring"

NOTE: 551.1 to be completed on one location per "Distribution Area" per quarter.

Correspond "Location Number" with quarter.

Example: RM Distribution.....1st Qtr.....South Bound Brook Mun. Bldg.

Location Number	Location	Well Run	1st Qtr (Feb)	2nd Qtr (May)	3rd Qtr (Aug)	4th Qtr (Nov)
<b>PWSID 2004002 - RM Distribution</b>						
1	South Bound Brook Mun Bldg., 12 Main St., S. Bound Brook	Western				
2	Exxon Station, 5 Stelton Rd., Piscataway	Western				
3	Eckerd Drug Store, 2301 Park Ave., South Plainfield	Western				
4	Morey LaRue Laundry, 2400 E. Linden Ave., Linden (Max RT)	Eastern				
<b>PWSID 2004002 - Somerville Distribution</b>						
5	United National Bank, 1921 Washington Valley Rd., Martinsville	Somerville				
6	Bob's Flowers, 153 Main St., Peapack-Gladstone (Max RT)	Somerville				
7	Bridgewater Manor, Hwy. 202/206, Bridgewater	Somerville				
8	Pit Stop, 39 Old York Rd., Bridgewater	Somerville				
<b>PWSID 2004002 - Eastern Distribution</b>						
9	Hillside Mun. Bldg., Liberty & Hillside Ave., Hillside (Max RT)	Eastern				
10	Union Public Library, 1980 Morris Ave., Union	Eastern				
11	Kenilworth Mun. Bldg., 567 Kenilworth Blvd., Kenilworth	Eastern				
12	Roselle Park Mun. Bldg., 137 Chestnut St., Roselle Park	Eastern				
<b>PWSID 2004002 - Western Distribution</b>						
13	North Plainfield Fire Dept., 8 Lincoln Pl., N. Plainfield	Central				
14	Green Brook EMS, 115 Green Brook Rd., Green Brook	Western				
15	Middlesex Mun. Bldg., 1200 Mountain Ave., Middlesex	Western				
16	Warren Twp. Mun. Bldg., 46 Mountain Blvd., Warren (Max RT)	Western				
<b>PWSID 2004002 - Central East Distribution</b>						
17	DPW, 15 South Ave., Garwood	Eastern				
18	Cranford Fire Dept., 6 Springfield Ave., Cranford (Max RT)	Central				
19	Westfield Mun. Bldg., 425 East Broad St., Westfield	Central				
20	Mountainside Mun. Bldg., 1385 Rt. 22 East, Mountainside	Central				
<b>PWSID 2004002 - Central West Distribution</b>						
21	Plainfield Police Dept., 515 Watchung Ave., Plainfield	Central				
22	Scotch Plains Mun. Bldg., 430 Park Ave., Scotch Plains (Max RT)	Central				
23	Fanwood Mun. Bldg., 75 Martine Ave., Fanwood	Central				
24	Burger King, 1200 South Ave., Plainfield	Central				
<b>PWSID 2004002 - Princeton East Distribution</b>						
25	Larry's Sunoco #1, Rt. 1 & Harrison St., Princeton Twp.	Princeton				
26	Plainsboro Mun. Bldg., 60 Fox Run Rd., Plainsboro	Princeton				
27	Lucar Hardware, H'Town/Princeton Rd., Princeton Jct. (Max RT)	Princeton				
28	West Windsor Mun. Bldg., Clarksville & N. Post Rd., W. Windsor	Princeton				
<b>PWSID 2004002 - Princeton West Distribution</b>						
29	Princeton YMCA, Paul Robeson Place, Princeton Boro	Princeton				
30	Larini's Sunoco, 272 Alexander St., Princeton Twp.	Princeton				
31	Princeton Windsor Apts., Rt. 1 & Emmons Dr., West Windsor	Princeton				
32	Olive Garden, 3345 Brunswick Ave., Lawrence Twp. (Max RT)	Princeton				
<b>PWSID 2004002 - Princeton North Distribution</b>						
33	Nassau Tennis Club, 1800 Rt. 206, Skillman	Princeton				
34	WAWA, Route 206 & 518, Montgomery Twp.	Princeton				
35	Princeton Twp. Hall, Route 206, Princeton Twp. (Max RT)	Princeton				
36	Larry's Sunoco #2, Nassau St. & Murray Pl., Princeton	Princeton				
<b>PWSID 0323001- Mount Holly Distribution</b>						
1	Water Co. Office, 84 Mill St., Mount Holly	Mt. Holly				
2	HoJo's, 2015 Burlington Rd., Westampton Twp.	Mt. Holly				
3	Eastampton Twp. Mun Bldg., 725 Smithville-Jackson Rd.	Mt. Holly				
4	NJ Bell Telephone, 625 E. Lumberton Rd, Hainesport (Max RT)	Mt. Holly				
<b>PWSID 1205001 - Edison Distribution</b>						
1	Senior Citizen Center, 2963 Woodbridge Ave., Edison (Max RT)	Edison				
2	Nixon Post Office, 2079 Woodbridge Ave., Edison	Edison				
3	Edison Public Library, 340 Plainfield Ave., Edison	Edison				
4	Pines Manor, 2085 Rt. 27, Edison	Edison				
<b>PWSID 2004001 - Liberty Distribution</b>						
1	Loizeaux Concrete Yard, 144 3rd St, Elizabeth (Max RT)	Liberty				
2	J&N Amoco Station, 720 Spring St., Elizabeth	Liberty				
3	Engine Co. #2, 665 S. Broad St., Elizabeth	Liberty				
4	Engine Co. #8, 520 W. Grand St., Elizabeth	Liberty				

## ATTACHMENT D

# Canal Road Plant TOC Removal and Compliance Ratios

Sample Date	TOC analysis Date	Raw Alkalinity	Required % TOC Removal	Raw TOC	Raw DOC	Raw UV254	SUVA (calc)	Delivered TOC	Delivered DOC	Delivered UV254	SUVA (calc)	% TOC Removal	Compliance Ratio	Raw Turbidity
01/04/2018	01/04/2018	66	25	2.65	2.32	0.02	1.03	1.40	1.37	0.01	0.88	47	1.89	RM Lab
01/11/2018	01/11/2018	61	25	2.38	2.16	0.02	0.88	1.26	1.31	0.01	0.38	47	1.88	RM Lab
01/18/2018	01/19/2018	47	35	3.73	2.13	0.09	4.23	1.80	1.88	0.03	1.33	52	1.48	Belleville Lab
01/18/2018	01/19/2018	47	45	4.44	3.74	0.08	2.06	1.98	2.14	0.02	0.77	55	1.23	RM Lab
01/23/2018	01/24/2018	37	35	2.94	2.55	0.06	2.35	1.51	1.51	0.02	1.26	49	1.39	RM Lab
01/31/2018	01/31/2018	54	35	3.62	2.61	0.06	2.18	1.50	1.45	0.02	1.24	59	1.67	RM Lab
02/07/2018	02/07/2018	51	35	3.72	3.39	0.09	2.63	1.78	1.80	0.03	1.39	52	1.49	RM Lab
02/07/2018	02/08/2018	51	35	1.70	1.68	0.02	1.37	3.11	2.76	0.09	3.19	-83	-2.37	Belleville Lab
02/14/2018	02/14/2018	41	45	4.01	3.63	0.10	2.67	1.78	1.88	0.02	0.90	56	1.24	RM Lab
02/21/2018	02/21/2018	42	45	4.24	4.00	0.11	2.80	1.75	1.81	0.02	1.22	59	1.31	RM Lab
02/28/2018	02/28/2018	44	35	3.57	3.03	0.08	2.71	1.46	1.47	0.02	1.02	59	1.69	RM Lab
03/07/2018	03/08/2018	45	35	2.83	3.29	0.06	1.95	1.33	1.88	0.01	0.74	53	1.51	RM Lab
03/14/2018	03/17/2018	45	35	2.90	2.99	0.10	3.28	1.45	1.58	0.02	1.33	50	1.43	Belleville Lab
03/14/2018	03/14/2018	45	35	3.71	3.40	0.14	4.03	1.57	1.57	0.02	1.15	58	1.65	RM Lab
03/22/2018	03/22/2018	53	35	2.40	2.13	0.07	3.24	1.21	1.34	0.01	0.90	50	1.42	RM Lab
03/27/2018	03/27/2018	51	35	3.30	1.37	0.06	4.01	1.37	1.45	0.01	0.34	58	1.67	RM Lab
04/04/2018	04/04/2018	48	45	4.86	4.34	0.12	2.70	1.59	1.64	0.02	1.04	67	1.50	RM Lab
04/04/2018	04/11/2018	48	35	3.70	3.49	0.11	3.27	1.54	1.54	0.02	1.10	58	1.67	Belleville Lab





# Disinfection Byproduct Precursors Compliance Report

PC

System Name: New Jersey American Water -Raritan  
 Address: P.O Box 102  
 City: Bound Brook State: NJ Zip: 08805

PWSID # NJ2004002  
 Facility Name: Canal Road WTP  
 Facility ID #: TP073331

Number of paired TOC samples taken in quarter 13 Period 1st (Jan-March) ☒ 2nd (Apr - June)  
 (check one) 3rd (July-Sept) ☐ 4th (Oct - Dec)

☐ Check here if not in compliance

Source Sample Location: Canal Road Intake

Treated Sample Location: Canal Road WTP

Sample Results			A		B		C		D	E	F	G	
Month	Sample Date	Analysis Date	Source Water TOC		Treated Water TOC		Source Water Alkalinity		(1-(B/A)) x 100 = %	Required TOC removal %	Applicable Alternative criteria	D/E	
	mm/dd/yy	mm/dd/yy		mg/l		mg/l		mg/l					
1	04/04/18	04/04/18	4.86	mg/l	1.59	mg/l	48	mg/l	67.28	45		1.55	
	04/11/18	04/11/18	2.85	mg/l	1.33	mg/l	57	mg/l	53.33	35			
	04/18/18	04/18/18	4.59	mg/l	1.64	mg/l	36	mg/l	64.27	45			
	04/25/18	04/26/18	3.18	mg/l	1.17	mg/l	54	mg/l	63.21	35			
	Monthly Averages		3.87	mg/l	1.43	mg/l	48.75	mg/l	62.02	40.00			
2	05/01/18	05/01/18	3.36	mg/l	1.42	mg/l	55	mg/l	57.74	35		1.71	
	05/09/18	05/09/18	3.84	mg/l	1.26	mg/l	66	mg/l	67.19	25			
	05/15/18	05/15/18	5.35	mg/l	1.76	mg/l	56	mg/l	67.10	45			
	05/22/18	05/22/18	4.44	mg/l	1.58	mg/l	53	mg/l	64.41	45			
	05/30/18	05/30/18	4.00	mg/l	1.57	mg/l	57	mg/l	60.75	35			
Monthly Averages		4.20	mg/l	1.52	mg/l	57.40	mg/l	63.44	37.00				
3	06/06/18	06/06/18	3.82	mg/l	1.52	mg/l	59	mg/l	60.21	35		2.05	
	06/13/18	06/15/18	3.31	mg/l	1.47	mg/l	68	mg/l	55.59	25			
	06/20/18	06/20/18	3.52	mg/l	1.55	mg/l	70	mg/l	55.97	25			
	06/26/18	06/27/18	3.21	mg/l	1.48	mg/l	75	mg/l	53.89	25			
	Monthly Averages		3.47	mg/l	1.51	mg/l	68.00	mg/l	56.41	27.50			
<b>H Compliance Determination</b> If the average of Column G results for last twelve months < 1.0 not in compliance													
Month	Previous Quarter			Previous Quarter			Last Quarter			This Quarter			Running Annual Average
	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
Value Col G	1.42	1.87	2.25	1.63	1.91	1.90	1.56	1.41	1.56	1.55	1.71	2.05	1.74

If more than five paired samples per month use continuation sheet See page 2 of form for additional notes and further information

☐ Check here if a continuation sheet used

I certify that these samples were collected in accordance with procedures approved by the New Jersey Department of Environmental Protection

Name: Sumil Patel ☒ Purveyor ☐ Laboratory ☐ Approved Party

I certify that these samples were analyzed in accordance with procedures approved by the New Jersey Department of Environmental Protection

Name: Cassandra R. Malone ☒ Laboratory ☐ Approved Party

If applicable:

Laboratory Name: NJAW-RM Laboratory Laboratory ID # 18024

Form prepared by: ☒ Purveyor ☐ Laboratory ☐ Approved Party

Signature of Representative: Oleg A. Kostin Print Name

Phone (732) 302-3125 Date 7/9/18





## ATTACHMENT E

Drinking water regulations require that some action be taken by a water utility to minimize the corrosivity of the water supply if more than ten percent of the homes tested exceed the action level in the first draw samples for lead or copper.

The results from the first draw sample indicates how much lead and copper is being contributed to the water from the plumbing and fixtures in your home as it stands for a fixed period of time. Due to this requirement you **must collect the sample before any major water use** (at least 6 hours), **usually in the early morning or evenings upon returning home from work.**

PLEASE COLLECT SAMPLE AND LEAVE OUTSIDE YOUR FRONT DOOR THE MORNING OF: \_\_\_\_\_ according to the following instructions: (if you miss the collection date and would still like to participate, please call us at 732-302-3196).

1.) REMEMBER TO COLLECT THE SAMPLES IN THE EARLY MORNING OR IN THE EVENING UPON RETURNING HOME FROM WORK, **BEFORE ANY MAJOR WATER USE.** (at least 6 hours)

**\*\*\*DO NOT SAMPLE FROM FAUCET THAT IS CONNECTED TO A FILTER OR OTHER HOME TREATMENT DEVICE UNLESS IT CAN BE BYPASSED\*\*\***

2.) A KITCHEN OR BATHROOM **COLD WATER FAUCET** IS TO BE USED FOR SAMPLING. **\*IMPORTANT DO NOT LET WATER RUN\***. PLACE THE LARGE WIDE MOUTH SAMPLE BOTTLE BELOW FAUCET AND OPEN TO NORMAL FLOW, FILLING BOTTLE **IMMEDIATELY** TO "1000 ML" BLACK LINE. TIGHTLY CLOSE BOTTLE.

3.) DO NOT SHUT OFF WATER. **ALLOW TO FLOW NORMALLY FOR APPROXIMATELY 5 MINUTES** AND FILL SMALLER BOTTLE TO 500 ML LINE. TIGHTLY CLOSE BOTTLE.

4.) FILL IN INFORMATION ON BOTH BOTTLES AND AS REQUESTED BELOW. PLACE SAMPLES WITH THIS DOCUMENT IN SAMPLING KIT OUTSIDE YOUR FRONT DOOR FOR OUR COURIER TO PICK UP.

**- IMPORTANT -  
PLEASE PRINT CLEARLY**

1.) Name: CANNARIELLO Address: 130 South Stiles St

2.) Sample was collected from: ☒ Kitchen ☐ Bathroom Time: 1:20 Date: 3-22

3.) Water was last used: Time 1:20 Date: 3-22-17

4.) Plumbing Repairs (If any): \_\_\_\_\_

6.) I have read the above instructions and have collected the sample accordingly

Signature: [Signature] Date: 3-22 Phone No: (908) 492-3926  
472-3926

Drinking water regulations require that some action be taken by a water utility to minimize the corrosivity of the water supply if more than ten percent of the homes tested exceed the action level in the first draw samples for lead or copper.

The results from the first draw sample indicates how much lead and copper is being contributed to the water from the plumbing and fixtures in your home as it stands for a fixed period of time. Due to this requirement you **must collect the sample before any major water use (at least 6 hours), usually in the early morning or evenings upon returning home from work.**

PLEASE COLLECT SAMPLE AND LEAVE OUTSIDE YOUR FRONT DOOR THE MORNING OF: Friday September 16, 2016 according to the following instructions: (if you miss the collection date and would still like to participate, please call us at 732-302-3196).

1.) REMEMBER TO COLLECT THE SAMPLES IN THE EARLY MORNING OR IN THE EVENING UPON RETURNING HOME FROM WORK, **BEFORE ANY MAJOR WATER USE. (at least 6 hours)**

**\*\*\*DO NOT SAMPLE FROM FAUCET THAT IS CONNECTED TO A FILTER OR OTHER HOME TREATMENT DEVICE UNLESS IT CAN BE BYPASSED\*\*\***

2.) A KITCHEN OR BATHROOM **COLD WATER FAUCET** IS TO BE USED FOR SAMPLING. **IMPORTANT.....DO NOT LET WATER RUN.** PLACE THE LARGE SAMPLE BOTTLE BELOW FAUCET AND OPEN TO NORMAL FLOW, FILLING BOTTLE **IMMEDIATELY** TO "1000 ML" LINE. TIGHTLY CAP BOTTLE.

3.) DO NOT SHUT OFF WATER. **ALLOW TO FLOW NORMALLY FOR APPROXIMATELY 5 MINUTES** AND FILL SMALLER BOTTLE TO 500 ML LINE. TIGHTLY CAP BOTTLE.

4.) FILL IN INFORMATION ON BOTH BOTTLES AND AS REQUESTED BELOW. PLACE SAMPLES WITH THIS DOCUMENT IN SAMPLING KIT OUTSIDE YOUR FRONT DOOR FOR OUR COURIER TO PICK UP.

---

**- IMPORTANT -  
PLEASE PRINT CLEARLY**

1.) Name: SPELDOS Address: 8 ELLIOT PLACE

2.) Sample was collected from: ☐ Kitchen ☒ Bathroom Time: 7:30 PM Date: Sept 16

3.) Water was last used: Time 4 PM Date: Sept 16

4.) Plumbing Repairs (If any): NO

6.) I have read the above instructions and have collected the sample accordingly

Signature Speldos Date Sept 16 Phone No: 732-656-5016



## ATTACHMENT F

Sample Type	Sample Point	Sample Number	Sample Date	Code	Analyte_Name	Result	Address	Address	Chlorine Res
RT	DS	33477843	20-Sep-16	3100	COLIFORM (TCR)	A		AL-JOHN PIZZA	0.15
RT	DS	33477834	20-Sep-16	3100	COLIFORM (TCR)	A		PISCATAWAY SR. CENTE	1.69
RT	DS	33477838	20-Sep-16	3100	COLIFORM (TCR)	A		SUNOCO FULLERTON	1.7
RT	DS	33477839	20-Sep-16	3100	COLIFORM (TCR)	A		SUBWAY	1.62
RT	DS	33477841	20-Sep-16	3100	COLIFORM (TCR)	A	HPC=0	WEST WINDSOR MB	0.01
RT	DS	33477842	20-Sep-16	3100	COLIFORM (TCR)	A	HPC=0	OLIVE GARDEN	0.4
RT	DS	33477833	20-Sep-16	3100	COLIFORM (TCR)	A	HPC=0	WARREN MB	1.2
RT	DS	2890	21-Sep-16	3100	COLIFORM (TCR)	A		5 FAIRMOUNT RD	0.44
RT	DS	33478228	21-Sep-16	3100	COLIFORM (TCR)	A		SPEEDY MART	0.12
RT	DS	33478201	21-Sep-16	3100	COLIFORM (TCR)	A		MOREY LARUE LAUNDRY	1.74
RT	DS	33478202	21-Sep-16	3100	COLIFORM (TCR)	A		UNION PUBLIC LIBRARY	0.85
RT	DS	33478203	21-Sep-16	3100	COLIFORM (TCR)	A		KRAUZERS HILLSIDE	0.10
RT	DS	33478204	21-Sep-16	3100	COLIFORM (TCR)	A		NORWOOD AUTO PARTS	0.72
RT	DS	33478205	21-Sep-16	3100	COLIFORM (TCR)	A		SUNOCO CRANFORD	0.66
RT	DS	33478209	21-Sep-16	3100	COLIFORM (TCR)	A		DUNELLEN MB	0.8
RT	DS	33478210	21-Sep-16	3100	COLIFORM (TCR)	A		PISCATAWAY LIQUORS	1.17
RT	DS	33478211	21-Sep-16	3100	COLIFORM (TCR)	A	<0.05	TIGER MART	0
RT	DS	33478212	21-Sep-16	3100	COLIFORM (TCR)	A		SOUTH BB MB	2.2
RT	DS	33478229	21-Sep-16	3100	COLIFORM (TCR)	A		LARRYS SUNOCO #2	0.9

732	18024	DS	09/21/16	10:30		D-73	33478229	Absent		0.8		
732	18024	DS	09/21/16	11:10		D-01	33478201	Absent		1.74		
732	18024	DS	09/21/16	11:35		D-40	33478213	Absent		2.14		
732	18024	DS	09/21/16	12:00		D-34	33478220	Absent		0.25		
732	18024	DS	09/21/16	12:05		D-23	33478211	Absent		0		
732	18024	DS	09/21/16	12:45		JB-7	33478230	Absent		0.08		
732	18024	DS	09/21/16	13:00		D-19	33478203	Absent		0.16		
732	18024	DS	09/21/16	13:00		D-64	33478223	Absent		1.07		
732	18024	DS	09/21/16	13:30		D-11	33478209	Absent		0.8		
732	18024	DS	09/21/16	13:50		D-03	33478202	Absent		0.85		
732	18024	DS	09/21/16	13:50		D-27	33478212	Absent		2.2		
732	18024	DS	09/21/16	14:10		D-45	33478214	Absent		2.2		
732	18024	DS	09/21/16	14:45		D-37	33478222	Absent		1.33		
732	18024	DS	09/22/16	07:22		D-29	33478251	Absent		2.04		
732	18024	DS	09/22/16	07:25		D-62	33478245	Absent		2.26		
732	18024	DS	09/22/16	08:10		D-53	33478256	Absent		1.89		
732	18024	DS	09/22/16	08:39		D-49	33478253	Absent		1.16		
732	18024	DS	09/22/16	08:55		D-48	33478244	Absent		1.3		
732	18024	DS	09/22/16	09:05		D-24	33478235	Absent		0		1.5
732	18024	DS	09/22/16	09:11		D-52	33478255	Absent		1.47		
732	18024	DS	09/22/16	09:25		D-38	33478252	Absent		1.58		
732	18024	DS	09/22/16	09:30		D-47	33478243	Absent		1.52		
732	18024	DS	09/22/16	09:40		D-74	33478258	Absent		2.03		
732	18024	DS	09/22/16	09:45		D-18	33478233	Absent		0.32		
732	18024	DS	09/22/16	09:57		D-51	33478254	Absent		0.58		
732	18024	DS	09/22/16	10:40		D-20	33478234	Absent		0.68		
732	18024	DS	09/22/16	10:45		D-70	33478257	Absent		0.57		
732	18024	DS	09/22/16	11:10		D-04	33478232	Absent		1.2		
732	18024	DS	09/22/16	11:15		D-06	33478240	Absent		1.71		
732	18024	DS	09/22/16	11:45		D-42	33478242	Absent		0.63		
732	18024	DS	09/22/16	12:15		D-81	33478259	Absent		0.39		
732	18024	DS	09/22/16	13:30		D-33	33478241	Absent		1.59		
732	18024	DS	09/23/16	09:10		D-27	33477503	Absent		2.2	0.06	
732	18024	DS	09/23/16	09:35		D-10	33477502	Absent		2.2	0	
732	18024	DS	09/23/16	10:30		D-20	33477532	Absent		0.75	0	
732	18024	DS	09/23/16	11:00		D-01	33477501	Absent		1.79	0	
732	18024	DS	09/23/16	11:40		D-47	33477516	Absent		1.76	0.08	
732	18024	DS	09/26/16	07:30		D-30	33477915	Absent		1.55		
732	18024	DS	09/26/16	07:50		D-29	33477914	Absent		2.1		
732	18024	DS	09/26/16	08:40		D-45	33477910	Absent		2.2		
732	18024	DS	09/26/16	08:40		D-54	33477916	Absent		0.26		
732	18024	DS	09/26/16	08:55		D-15	33477912	Absent		1.04		
732	18024	DS	09/26/16	09:05		D-27	33477908	Absent		2.2		0
732	18024	DS	09/26/16	09:30		D-10	33477906	Absent		2		
732	18024	DS	09/26/16	09:30		D-28	33477913	Absent		1.99		
732	18024	DS	09/26/16	10:00		D-70	33477919	Absent		0.31		
732	18024	DS	09/26/16	10:20		D-75	33477920	Absent		0.99		2
732	18024	DS	09/26/16	10:25		D-22	33477902	Absent		0		1
732	18024	DS	09/26/16	11:00		D-200	33477903	Absent		1.73		
732	18024	DS	09/26/16	11:10		JB-4	33477921	Absent		0.23		
732	18024	DS	09/26/16	11:20		D-01	33477901	Absent		1.5		1
732	18024	DS	09/26/16	11:45		D-40	33477909	Absent		1.72		



# Bacteriological Analysis - Total Coliform / Heterotrophic Plate Count

Total Coliform - Membrane Filtration Method (SM18/19 9222B)  
 Total Coliform: 22-24hrs @ 35 +/- 0.5C  
 Incubation Time Temp (C) Initials  
 In: 9/21/16 16:30 35 KS  
 Out: 9/22/16 14:30 35 SY

Plate Count (HPC) - Pour Plate Method 9215B  
 HPC: 48 +/- 2 hrs @ 35 +/- 0.5C  
 Incubation Time Temp (C) Initials  
 In: 9/21/16 16:30 35 KS  
 Out: 9/23/16 15:00 35 SY

ID #	Sample	Sample Volume (mL)	m-Endo Colonies per 100 mL Sample			E. coli +/-	HPC Plate Count (CFU/mL)		
			BG	A	TC		Dup 1	Dup 2	AVG
	Media Blank	100							
	Buffer Blank	100	0	0	0				
	Dunellen Mun. Bldg	100	0	0	0				
	Piscataway Liquors	100	0	0	0				
	Tiger Mart, Clark	100	0	0	0		0	0	0
	South BB MB	100	0	0	0				
	Mobile Gas, Edison	100	0	0	0		0	0	0
	Mohring Auto	100	0	0	0				
	S Clinton Av Deli	100	0	0	0				
	Oak Tree Tanks	100	0	0	0		0	1	0
	Tamadge Rd inter	100	0	0	0		0	1	0
	Buffer Blank	100	0	0	0				
		100							
		100							
		100							
		100							
		100							
		100							
		100							
		100							
		100							
		100							
		100							
		100							

\*\*\*\* all results <1 are reported as 0  
 Notes:

HPC sample vol 1ml

Plated By: K. Shaffer  
 TC Read By: Syria  
 HPC Read By: SY

Date: 9/21/16 Time: 16:30  
 Date: 9/22/16 Time: 14:30  
 Date: 9/23/16 Time: 15:00

**Disinfectant Residuals Reporting Form**

**DR**

System Name: New Jersey American Water -Raritan System PWSID # NJ2004002  
Address: P.O.Box 102  
City: Bound Brook State: NJ Zip: 08805

Monitoring Period:	Month <b>September</b> Year <b>2016</b>	Facility ID =	<b>TP073331</b>
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**Section A to be completed monthly by all surface water systems**


<b>A Monthly Report on Disinfectant Residual entering Distribution System</b>			
Check here if residual entering the distribution system was less than 0.2mg/l for more than 4 hours			
Lowest Measurement of Disinfectant Residual in Water Entering Distribution System	Number of Days Disinfectant Residual was less than 0.2mg/l	Longest Duration Disinfectant Residual was less than 0.2mg/l (Hours)	
<b>0.9</b> mg/l	<b>0</b>	<b>0</b>	
NOTE: For each day report the lowest residual concentration on the Monthly Operator's Report			

**Section B to be completed monthly by all surface water and surface water purchasing systems**

<b>B Monthly Report on Disinfectant Residuals in the Distribution System</b>							
Check here if not in compliance with maintaining a residual in 95% of distribution samples							
Number of Measurements Required in Month	Number of Measurements taken in month	No. of Instances where residual disinfectant concentration is measured in month A	No. of Instances where HPC measured instead of residual in month B	No. of instances where no residual is detected* and no HPC is measured in month C	No. of instances where no residual is detected* and HPC > 500/ml D	No. of instances where residual disinfectant concentration is not measured and HPC > 500/ml E	V = $\frac{(C+D+E)}{(A+B)} \times 100$
240	260	260	0	0	0	0	0.00

\*Detectable disinfectant residual means a chlorine residual of at least 0.05 mg/l (free chlorine, combined chlorine or chlorine dioxide), or a heterotrophic plate count of 500 /ml or less, at the point of collection (N.J.A.C. 7:10-1.3)

**Section C to be completed quarterly by any system that adds a chemical disinfectant or delivers water previously treated with a chemical disinfectant**

<b>C Quarterly Report on Disinfectant Residuals in the Distribution System</b>						
Check here if not in compliance with MRDL limit of 4.0mg/l					Note: Use Form BSDW-26 to report Chlorine Dioxide Residuals	
Month	Check if Chlorine	Check if chloramine	Number of Samples in Month	Average of Monthly Results (mg/l)	Current Quarterly Average of Monthly Results (mg/l)	Monitoring Period (Check one)
1		<b>X</b>	272	1.0		1st (Jan-March)
2		<b>X</b>	283	1.0		2nd (Apr - June)
3		<b>X</b>	260	1.1		<b>X</b> 3rd (July - Sept)
						4th (Oct - Dec)
Previous Quarter Avg.		Previous Quarter Avg.		Last Quarter Avg.		Running Annual Average (mg/l)
1.2		0.9		1.0	1.0	1.0

I certify that these samples were collected and analyzed in accordance with procedures approved by the New Jersey Department of Environmental Protection

Name: Sumit Patil ☒ Laboratory ☐ Approved Party  
If applicable: Laboratory Name: Elizabethtown Water Company Laboratory ID # 18024

Form prepared by: ☒ Purveyor ☐ Laboratory ☐ Approved Party  
Michael Gaur For Oleg Kostin Oleg A. Kostin 732-302-3125  
Signature of Representative Print Name Phone

10-10-16  
Date

This form is available from the DEP web site at <http://www.nj.gov/dep/watersupply>

Sample Type	Sample Point	Sample Number	Sample Date	Code	Analyte Name	Result	Address	Address	Chlorine Res
RT	DS	34542134	05-Jan-17	3100	COLIFORM (TCR)	A	, <0.05 Free chlorine value removed at the request of the water system, AMA 3/6/2017	ROSELLE MB	1.41
RT	DS	34542135	05-Jan-17	3100	COLIFORM (TCR)	A	, <0.05 Free chlorine value removed at the request of the water system, AMA 3/6/2017	MOUNTAINSIDE MB	0.08
RT	DS	34542140	05-Jan-17	3100	COLIFORM (TCR)	A	, <0.05 Free chlorine value removed at the request of the water system, AMA 3/6/2017	PLAINFIELD POLICE DE	1.51
RT	DS	34542141	05-Jan-17	3100	COLIFORM (TCR)	A	, <0.05 Free chlorine value removed at the request of the water system, AMA 3/6/2017	BLUE STARS CLEANERS	1.45
RT	DS	34542142	05-Jan-17	3100	COLIFORM (TCR)	A	Free chlorine value removed at the request of the water system, AMA 3/6/2017	SS LELAND AVE	1.11
RT	DS	34542143	05-Jan-17	3100	COLIFORM (TCR)	A	, <0.05, <0.05 Free chlorine value removed at the request of the water system, AMA 3/6/2017	GINO'S TIRE SERVICE	0
RT	DS	34542144	05-Jan-17	3100	COLIFORM (TCR)	A	, <0.05 Free chlorine value removed at the request of the water system, AMA 3/6/2017	PISCATAWAY SR. CENTE	1.4
RT	DS	34542153	05-Jan-17	3100	COLIFORM (TCR)	A	, <0.05 Free chlorine value removed at the request of the water system, AMA 3/6/2017	STS AUTO	1.42
RT	DS	34541401	09-Jan-17	3100	COLIFORM (TCR)	A	, <0.05 Free chlorine value removed at the request of the water system, AMA 3/6/2017	MOREY LARUE LAUNDRY	1.59





# Bacteriological Analysis - Total Coliform / Heterotrophic Plate Count

Total Coliform - Membrane Filtration Method (SM18/19 9222B)  
 Total Coliform: 22-24hrs @ 35 +/- 0.5C  
 Incubation Time Temp (C) Initials  
 In: 1/5/17 1600 35 KS  
 Out: 1/6/17 1430 35 MT

Plate Count (HPC) - Pour Plate Method 9215B  
 HPC: 48 +/- 2 hrs @ 35 +/- 0.5C  
 Incubation Time Temp (C) Initials  
 In: 1/5/17 1600 35 KS  
 Out: 1/7/17 1430 35 KS

ID #	Sample	Sample Volume (mL)	m-Endo Colonies per 100 mL Sample			E. coli +/-	HPC Plate Count (CFU /mL)		
			BG	A	TC		Dup 1	Dup 2	AVG
	Media Blank	100							
	Buffer Blank	100	0	0	0				
	Plainfield Police Dept.	100	0	0	0				
	Blue Star Cleaners	100	0	0	0				
	Sample Station on Leland Ave.	100	0	0	0				
	Gino's Tire Service	100	0	0	0				
	Piscataway Senior Center	100	0	0	0				
	Raceway Gas Station	100	0	0	0				
	W&W Auto Repair	100	0	0	0				
	Netherwood Effluent *	100	0	0	0		0	0	0
	Aberdeen Road Well Del'd.	100	0	0	0				
	Green Brook Station Effluent	100	0	0	0				
	Rock Ave. Well Del'd	100	0	0	0				
	Clinton Ave Well Delivered	100	0	0	0				
	Buffer Blank	100	0	0	0				
		100							
		100							
		100							
		100							
		100							
		100							
		100							
		100							
		100							
		100							

\*\*\*\* all results <1 are reported as 0

HPC sample vol 1ml

Notes:

Plated By:

K. Shaffer

Date: 1/5/17

Time: 1600

TC Read By:

M. J. S. L.

Date: 1/6/17

Time: 1430

HPC Read By:

K. Shaffer

Date: 1/7/17

Time: 1430

Department of Environmental Protection  
 Mail Code 401-04Q  
 Division of Water Supply & Geoscience - Bureau of Safe Drinking Water  
 401 East State Street, P.O. Box 420  
 Trenton, New Jersey 08625-0420  
 Tel (609) 292-5550 Fax (609) 292-1654

**Disinfectant Residuals Reporting Form****DR**

System Name: New Jersey American Water -Raritan System PWSID # NJ2004002  
 Address: P.O.Box 102  
 City: Bound Brook State: NJ Zip: 08805

Monitoring Period:	Month <u>January</u> Year <u>2017</u>	Facility ID = <u>TP059206</u>
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**Section A to be completed monthly by all surface water systems**

<b>A Monthly Report on Disinfectant Residual entering Distribution System</b>		
Check here if residual entering the distribution system was less than 0.2mg/l for more than 4 hours		
Lowest Measurement of Disinfectant Residual in Water Entering Distribution System	Number of Days Disinfectant Residual was less than 0.2mg/l	Longest Duration Disinfectant Residual was less than 0.2mg/l (Hours)
<u>0.7</u> mg/l	<u>0</u>	<u>0</u>
NOTE: For each day report the lowest residual concentration on the Monthly Operator's Report		

**Section B to be completed monthly by all surface water and surface water purchasing systems**

<b>B Monthly Report on Disinfectant Residuals in the Distribution System</b>							
Check here if not in compliance with maintaining a residual in 95% of distribution samples							
Number of Measurements Required in Month	Number of Measurements taken in month	No. of Instances where residual disinfectant concentration is measured in month A	No. of Instances where HPC measured instead of residual in month B	No. of instances where no residual is detected* and no HPC is measured in month C	No. of instances where no residual is detected* and HPC > 500/ml D	No. of instances where residual disinfectant concentration is not measured and HPC > 500/ml E	V = $\frac{(C+D+E)}{(A+B)} \times 100$
<u>240</u>	<u>256</u>	<u>256</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>

\*Detectable disinfectant residual means a chlorine residual of at least 0.05 mg/l (free chlorine, combined chlorine or chlorine dioxide), or a heterotrophic plate count of 500 /ml or less, at the point of collection (N.J.A.C. 7:10-1.3)

**Section C to be completed quarterly by any system that adds a chemical disinfectant or delivers water previously treated with a chemical disinfectant**

<b>C Quarterly Report on Disinfectant Residuals in the Distribution System</b>						
Check here if not in compliance with MRDL limit of 4.0mg/l					Note: Use Form BSDW-26 to report Chlorine Dioxide Residuals	
Month	Check if Chlorine	Check if chloramine	Number of Samples in Month	Average of Monthly Results (mg/l)	Current Quarterly Average of Monthly Results (mg/l)	Monitoring Period (Check one)
1		<b>X</b>	<u>256</u>	<u>1.4</u>		<b>X</b> 1st (Jan-March)
2						2nd (Apr - June)
3						3rd (July - Sept)
						4th (Oct - Dec)
Previous Quarter Avg.		Previous Quarter Avg.		Last Quarter Avg.		Running Annual Average (mg/l)
<u>1.0</u>		<u>1.0</u>		<u>1.1</u>	<u>1.4</u>	<u>1.1</u>

I certify that these samples were collected and analyzed in accordance with procedures approved by the New Jersey Department of Environmental Protection

Name: Sunil Patil ☒ Laboratory ☐ Approved Party  
 If applicable: Laboratory Name: Elizabethtown Water Company Laboratory ID # 18024  
 Form prepared by: ☒ Purveyor ☐ Laboratory ☐ Approved Party  
 Signature of Representative: Oleg A. Kostin Print Name 732-302-3125 Phone 2/20/17 Date

This form is available from the DEP web site at <http://www.nj.gov/dep/watersupply>